In the Claims:

The pending claims are presented below. Claims 22-25 are presently cancelled.

1. (previously presented) A method for growing a plurality of carbon nanotubes, the method comprising:

forming hydroxyl groups on a silicon-oxide substrate;

immersing the substrate in an aqueous solution including an iron-containing salt and hydroxylamine and forming iron-containing nanoparticles on the substrate;

calcining the substrate and forming iron oxide nanoparticles thereon; and

using the iron oxide nanoparticles as a catalyst, growing carbon nanotubes.

2. (original) The method of claim 1, wherein growing carbon nanotubes includes introducing a carbon-containing gas to the iron oxide nanoparticles and, using the iron oxide as a catalyst, reacting the carbon-containing gas and growing the carbon nanotubes from the iron oxide nanoparticles with carbon from the reaction.

3. (original) The method of claim 1, wherein forming iron oxide nanoparticles includes forming a sub-monolayer of uniformly distributed iron-oxide nanoparticles.

4. (original) The method of claim 1, wherein calcining the substrate and forming iron oxide nanoparticles includes converting the iron-containing nanoparticles to Fe_2O_3.

5. (original) The method of claim 1, wherein immersing the substrate in an aqueous solution including an iron-containing salt and hydroxylamine and forming iron-containing nanoparticles on the substrate includes reducing the iron-containing salt to form the iron-containing nanoparticles.

6. (original) The method of claim 5, wherein reducing the iron-containing salt includes using the hydroxylamine to reduce the iron-containing salt.

7. (original) The method of claim 1, wherein immersing the substrate in an aqueous solution including an iron-containing salt and hydroxylamine and forming iron-

containing nanoparticles on the substrate includes using hydroxyl groups on the silicon-oxide substrate to mediate the formation of the iron-containing nanoparticles.

8. (original) The method of claim 1, wherein immersing the substrate in an aqueous solution including an iron-containing salt and hydroxylamine and forming iron-containing nanoparticles on the substrate includes selecting the pH of the aqueous solution to control at least one of: the size and density of the iron-containing nanoparticles.

9. (original) The method of claim 8, wherein immersing the substrate in an aqueous solution including an iron-containing salt and hydroxylamine and forming iron-containing nanoparticles on the substrate includes selecting the reaction time that the substrate is immersed to control at least one of: the size and density of the iron-containing nanoparticles.

10. (original) The method of claim 1, wherein immersing the substrate in an aqueous solution including an iron-containing salt and hydroxylamine and forming iron-containing nanoparticles on the substrate includes selecting the reaction time that the substrate is immersed to control at least one of: the size and density of the iron-containing nanoparticles.

11. (original) The method of claim 1, wherein immersing the substrate in an aqueous solution including an iron-containing salt includes immersing the substrate in an aqueous solution including iron-chloride material.

12. (original) The method of claim 1, wherein forming hydroxyl groups on the silicon-oxide substrate includes hydroxylating the silicon-oxide substrate with the hydroxylamine.

13. (original) The method of claim 1, wherein growing carbon nanotubes includes growing a single-walled carbon nanotube.

14. (original) The method of claim 1, wherein calcining the substrate and forming iron oxide nanoparticles thereon includes forming a catalyst island.

15. (original) The method of claim 1, wherein growing carbon nanotubes includes forming a nanotube field effect transistor.

16. (original) The method of claim 1, wherein growing carbon nanotubes includes growing at least one carbon nanotube extending between two electrodes.

17. (original) The method of claim 1, further comprising:

patterning wells in a patternable material on the substrate; and

wherein forming iron-containing nanoparticles on the substrate includes forming iron-containing nanoparticles in the wells, wherein calcining the substrate and forming iron oxide nanoparticles includes forming iron oxide nanoparticles from the iron-containing nanoparticles formed in the wells and wherein growing carbon nanotubes includes growing carbon nanotubes extending from the iron oxide.

18. (original) The method of claim 17, wherein growing carbon nanotubes extending from the iron oxide in the wells includes growing a carbon nanotube extending between two electrodes.

19. (original) The method of claim 18, further comprising forming a back gate in the substrate and between the two electrodes, the back gate being configured and arranged to capacitively couple a voltage to the carbon nanotube extending between two electrodes.

20. (original) The method of claim 17, further comprising removing the patternable material after forming the iron-containing nanoparticles and prior to calcining the substrate and forming iron oxide nanoparticles.

21. (original) The method of claim 17, further comprising removing the patternable material after forming the iron-containing nanoparticles and prior to growing carbon nanotubes extending from the iron oxide.

22-25. (canceled)

26-33. (canceled)